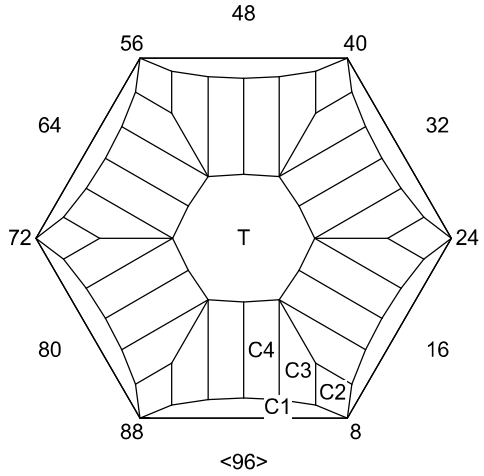

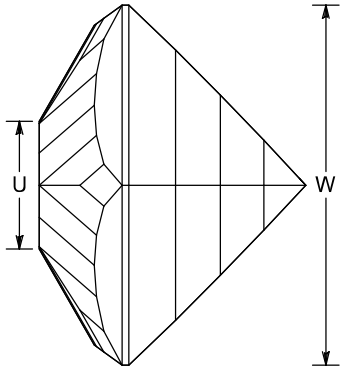

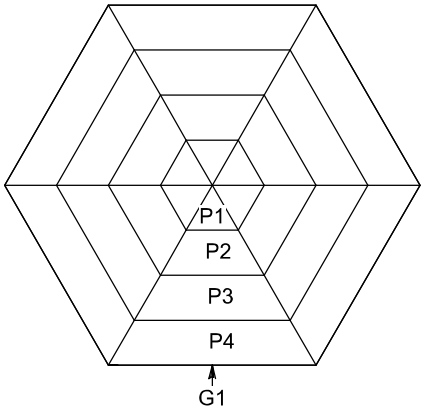

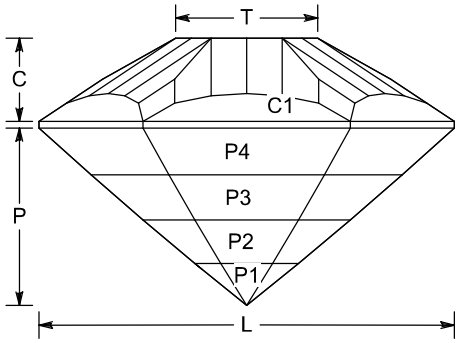

Opposed (Hex) to Step Cuts

by Arya Akhavan (September 2013)
Angles for R.I. = 1.540
61 + 6 girdles = 67 facets
6-fold, mirror-image symmetry
96 index
L/W = 1.155 T/W = 0.395 U/W = 0.355
P/W = 0.492 C/W = 0.230
Vol./W³ = 0.274

PAVILION

P1	43.00°	96-16-32-48-64-80	Cut to centerpoint.
G1	90.00°	96-16-32-48-64-80	Set stone size.
P2	44.00°	96-16-32-48-64-80	Cut even step such that P1 width = 1/8 W
P3	45.00°	96-16-32-48-64-80	Cut even step such that P2 width = 1/8 W
P4	46.00°	96-16-32-48-64-80	Cut even step such that P3 and P4 width = 1/8 W

CROWN

C1	53.94°	96-16-32-48-64-80	Level girdle.
C2	33.63°	08-24-40-56-72-88	Meet G1, C1
C3	30.43°	03-13-19-29-35-45-51-61-67-77-83-93	Cut even step such that C2 width = 1/6 length of G1-C1 edge
C4	30.00°	01-15-17-31-33-47-49-63-65-79-81-95	Cut even step such that C3 and C4 length = 1/6 width of G1-C1 edge
T	0.00°	Table	Meet C3, C4

I was recently talking to Willie Klaja, about how I gave him the idea to do an opposed bar in a hexagon shape since I couldn't get one to work myself. As much as I hate step cuts, that was the only way I managed to do one myself. Works in materials from quartz to CZ (RI = 1.54 - 2.16) with no changes, but I prefer it in quartz.
Suggested size = 6-15 mm
C:\Users\ARYADE~1\Pictures\DESIGN~1\WORKSI~1\Done\9OPPOS~1.GEM